REMARKS

Claims 1 to 15 as set forth in Appendix II of this paper are currently pending in this case. Claims 1, 6 to 11 and 14 have been amended and Claim 15 has been added as indicated in the Listing of Claims set forth in Appendix I of this paper.

Accordingly, applicants have revised the wording of Claims 1, 6 to 11 and 14 as suggested by the Examiner. Additionally, applicants have revised the definition of constituent (d) of the polymer component to better bring out that the monomer(s) employed as constituent (d) differ(s) from the monomers employed as constituents (a), (b) and (c). Applicants have also corrected the wording of Claim 14 and have introduced a new Claim 15 which is supported by Claim 1. No new matter has been added.

Claims 1 to 5, 11 and 14 stand rejected under 35 U.S.C. §102(b) as being anticipated by the teaching of ***Uhl et al.*** **(US 5,219,969).**

Applicants' Claim 1 is drawn to a particular skin cosmetic preparation which consists essentially of conventional additives and at least one copolymer obtained by

(i) free-radically initiated copolymerization of a particular monomer mixture, and

(ii) subsequent partial or complete quaternization and protonation of the polymer.

The particular monomer mixture employed in the preparation of the polymer contains as mandatory components

(a) 1 to 99.99% by weight of at least one monomer selected from the groups consisting of N-vinylimidazoles and diallylamines, optionally in partially or completely quaternized form; and

(e) 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds.

Optionally the monomer mixture additionally contains the following monomer(s) in the specified amounts:

(b) up to 98.99% by weight of at least one neutral or basic watersoluble monomer which is different from (a);

(c) up to 40% by weight of at least one unsaturated acid or unsaturated anhydride, and

(d) up to 50% by weight of at least one free-radically copolymeriz-

able monomer which is different from the monomers (a), from the monomers (b) and from the monomers (c).

Claims 2 to 5 and 11 incorporate the requirements of Claim 1 by reference. Claim 14 requires that the monomer mixture which is employed in stage (i) consists of the constituents (a), (b), (d) and (e). Furthermore, Claim 14 specifically excludes unsaturated acids and unsaturated anhydrides from being present in the monomer mixture.

The test for anticipation is one of identity, the identical invention must be shown in as complete detail as is contained in the claim[1]. In fact, the Federal Circuit has stated that it is error to treat claims as a catalog of separate parts, in disregard of the part-to-part relationships set forth in the claims that give those claims their meaning[2].

The teaching of ***Uhl et al.*** relates to a crosslinked acrylic or methacrylic acid copolymer obtained by copolymerization of[3]

(1) from 50 to 99 parts by weight of acrylic acid or methacrylic acid;

(2) from 1 to 50 parts by weight of at least one N-methylol (meth)acrylamide or derivatives thereof;

(3) from 50 to 10,000 ppm, based on (1) and (2), of at least one crosslinking monomer; and

(4) from 0 to 49 parts by weight of other monoethylenically unsaturated monomers,

which are useful as thickeners for textile print pastes[4]. Accordingly, the monomer mixture which is employed by ***Uhl et al.*** in the copolymerisation contains *at least 50% by weight* of acrylic acid or methacrylic acid.

In contrast to the monomer mixture which is employed by ***Uhl et al.***, applicants' invention as defined in Claim 1 requires that any unsaturated acid(s) or anhydride(s) are present in the monomer mixture in **from 0 to 40% by weight**. This requirement clearly distinguishes the subject matter of applicants' Claim 1 from the disclosure of ***Uhl et al.*** The teaching of ***Uhl et al.*** therefore fails to identically show the invention which is defined by applicants' invention.

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1) ie. Richardson v. Suzuki Motor Co., 868 F.2d 1226, 9 USPQ2d 1913 (CAFC 1989)

2) ie. Lindemann Maschinenfabrik v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481 (CAFC 1984)

3) col. 2, indicated lines 22 to 59, in conjunction with the abstract, of ***US 5,219,969***.

4) col. 1, indicated lines 7 to 19, of ***US 5,219,969***.

Uhl et al.'s disclosure accordingly does not amount to an anticipating disclosure within the meaning of Section 102. The same applies to the subject matter of Claims 2 to 5 and 11 which depend upon Claim 1 incorporate the respective requirements concerning the amount of unsaturated acid by reference.

In this context, it is respectfully noted that the transitional term "comprising" which is used in applicants' Claim 1 -while allowing for the presence of additional, *unrecited* ingredients- does not open the claimed subject matter in a way which alters the requirements concerning the **recited** ingredients[5]. The requirements which define constituent (c) of applicants' monomer mixture relate to unsaturated acid(s) and include acrylic acid and methacrylic acid. Acrylic acid and methacrylic acid are, in the definition of the monomer mixture set forth in Claim 1, **recited** ingredients, and the transitional term "comprising" does not open the monomer mixture to additional amounts of acrylic acid and methacrylic acid beyond the maximum of 40% by weight provided for in the definition of (c).

Applicants' Claim 14 does not allow for the presence of unsaturated acids and/or unsaturated anhydrides. Such acids and anhydrides are outside of the definition of constituents (a), (b) and (e)[6] and are specifically excluded as a monomer constituent (d)[7]. Moreover, Claim 14 requires the monomer mixture to consist of the recited monomers and, therefore, does not allow the inclusion of unspecified monomers. The teaching of ***Uhl et al.*** therefore clearly fails to anticipate the subject matter of applicants' Claim 14.

In light of the foregoing it is respectfully requested that the rejection of Claims 1 to 5, 11 and 14 stand rejected under 35 U.S.C. §102(b) as being anticipated by the teaching of ***Uhl et al.*** be withdrawn.

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5) See, e.g., *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (CAFC 1997) ("Comprising" is a term of art used in claim language which means that the named elements are essential, *but other elements may be added* and still form a construct within the scope of the claim." *emphasis added*); *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 229 USPQ 805 (CAFC 1986); *In re Baxter*, 656 F.2d 679, 686, 210 USPQ 795, 803 (CCPA 1981); *Ex parte Davis*, 80 USPQ 448, 450 (Bd. App. 1948) ("comprising" leaves "the claim open for the inclusion of *unspecified* ingredients even in major amounts", *emphasis added*).

6) Constituent (a) *only* allows for N-vinylimidazoles and diallylamines, constituent (b) is required to be "neutral or basic", and constituent (e) is required to have at least two ethylenically unsaturated, nonconjugated double bonds.

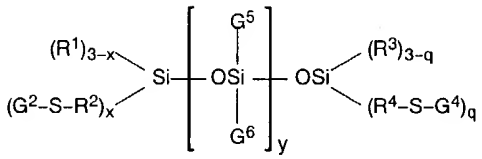
7) Constituent (d) requires the monomer(s) to be different from unsaturated acids and unsaturated anhydrides.

The subject matter of applicants' new Claim 15 is equally not anticipated by the teaching of ***Uhl et al.*** within the meaning of 35 U.S.C. §102. Applicants' new Claim 15 on the one hand limits the maximum amount of unsaturated acids and unsaturated anhydrides in the polymer mixture to 40% by weight and, on the other hand, excludes the presence of unspecified monomers. Favorable action is solicited.

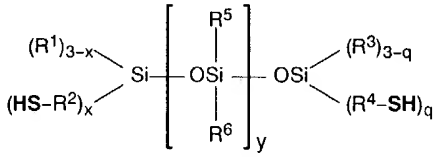
Claims 1 to 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable in light of the teaching of ***Tropsch et al.*** (**US 5,869,032**) when taken in view of the disclosure of ***Kumar et al.*** (**US 5,468,477**). Correspondingly, the Examiner rejected Claims 1 to 14 under the judicially created doctrine of obviousness-type double patenting as being unpatentable in light of Claims 1 to 13 of ***Tropsch et al.*** (**US 5,869,032**) when taken in view of ***Kumar et al.*** (**US 5,468,477**).

More particularly, the Examiner takes the position that ***Tropsch et al.*** disclose all of the elements of applicants' invention with the exception of the presence of a monomer which has at least two ethylenically unsaturated nonconjugated double bonds. The Examiner contends that a person of ordinary skill in the art would have included such a *"crosslinker"* monomer in light of the graft or block copolymers taught by ***Kumar et al.*** which are, similar to the copolymers of ***Tropsch et al.***'s disclosure, used in cosmetic preparations.

The graft or block copolymers taught by ***Kumar et al.*** are represented by a formula



wherein G^2 and G^4 comprise a group "A" and G^5 and G^6 inter alia denote $-Z-S-A^{8)}$. The group "A" of ***Kumar et al.*** represents a vinyl polymeric segment consisting essentially of polymerized free radical polymerizable monomers[9]. The graft or block copolymers are obtained when a mercapro functionalized silicone macromolecule of formula



wherein at least one of R^5 and R^6 comprises at least one **-Z-SH** group[10], and the monomers of "A" are copolymerized in a free radical

8) Col. 4, indicated line 50, to col. 5, indicated line 10, of ***US 5,468,477***.

9) Col. 4, indicated lines 64 to 66, of ***US 5,468,477***.

10) Col. 8, indicated line 33 et seq., of ***US 5,468,477***.

copolymerization reaction. The Examiner will note that the mercapro functionalized silicone macromolecule of ***Kumar et al.*** does not have *"at least two ethylenically unsaturated, non-conjugated double bonds"*[11]. Accordingly, a person of ordinary skill in the art who takes the teaching of ***Kumar et al.*** as an incentive and source to modify the teaching of ***Tropsch et al.*** cannot arrive at a monomer mixture as defined in applicants' Claim 1[12].

To establish a prima facie case of obviousness, all of the following three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings[13]. Second, there must be a reasonable expectation of success[14], and, finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations[15]. A combination of the disclosure of ***Tropsch et al.*** and the teaching of ***Kumar et al.*** fails to teach or suggest the utilization of a monomer mixture which contains, as a mandatory constituent, *0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds*, as required by applicants' claims, and the same applies to a modification of the disclosure of ***Tropsch et al.*** in light of the teaching of ***Kumar et al.*** Accordingly, the third of the three basic criteria for establishing obviousness within the meaning of Section 103(a) is not met. A combination of the disclosures of ***Tropsch et al.*** and ***Kumar et al.***, or the disclosure of ***Tropsch et al.*** taken in view of the teaching of ***Kumar et al.*** therefore fails to establish that applicants' invention as defined in Claim 1 was *prima facie* obvious at the time it was made.

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11) The -SH groups of ***Kumar et al.***'s mercapro functionalized silicone macromolecule react under the conditions of a free radical polymerization with the polymerizable vinyl monomers which form "A".

12) Applicants have carefully studied the disclosure of ***Kumar et al.*** with a particular focus on the sections cited by the Examiner (*col. 4, lines 7-28, col. 8, lines 20-28, and col. 15, lines 22-44*). Applicants' are unable to find any teaching or suggestion to modify a free-radical polymerized (co)polymer by adding a monomer which contains at least two ethylenically unsaturated, nonconjugated double bonds. It would be highly appreciated by applicants and their representative if the Examiner could be so kind and more specifically point out where in the teaching of ***Kumar et al.*** the respective disclosure or suggestion is deemed to be provided.

13) In re Rouffet, 149 F.3d 1350, 47 USPQ2d 1453 (CAFC 1998)

14) In re Merck & Co., Inc., 800 F.2d 1091, 231 USPQ 375 (CAFC 1986)

15) In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). See also MPEP §2142, §2143.03.

The requirement for the presence of from 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds, is an integral part of the subject matter defined in applicants' Claims 2 to 14 and is incorporated therein either by reference to Claim 1 or specifically recited, and the same applies to the subject matter of applicants' new Claim 15. The subject matter of applicants' Claims 2 to 15 is therefore equally not rendered unpatentable under Section 103(a) by the teachings of ***Tropsch et al.*** and ***Kumar et al.***[16]. It is therefore respectfully requested that the rejection under 35 U.S.C. §103(a) and the obviousness-type double patenting rejection[17] be withdrawn.

REQUEST FOR EXTENSION OF TIME:

It is respectfully requested that a *two* month extension of time be granted in this case. A check for the *$420.00* fee is attached.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account No. 11.0345. Please credit any excess fees to such deposit account.

Respectfully submitted,
KEIL & WEINKAUF

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Reg. No. 42,205

1350 Connecticut Ave, N.W.
Washington, D.C. 20036
(202) 659-0100

Encl.: THE LISTING OF CLAIMS (Appendix I)
THE CURRENT CLAIMS (Appendix II)

HBK/BAS

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16) If an independent claim is non-obvious under 35 U.S.C. §103, then any claim depending therefrom is non-obvious (In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (CAFC 1988)).

17) The analysis concerning *"obviousness-type double patenting"* essentially parallels the determination of (non)obviousness under Section 103 (In re Longi, 759 F.2d 887, 892, 225 USPQ 645, 648 (CAFC 1985); In re Blauwe, 736 F.2d 699, 222 USPQ 191 (CAFC 1984)).

APPENDIX I:

THE LISTING OF CLAIMS (version with markings):

1. (*currently amended*) In a skin cosmetic or dermatological preparation selected from cosmetic compositions for cleansing the skin, cosmetic compositions for the care and protection of the skin, nail care compositions, and preparations for decorative cosmetics, the improvement wherein the composition consists essentially of [~~in addition to~~] customary additives[~~,~~] and at least one copolymer obtained by

   (i) free-radically initiated copolymerization of a monomer mixture comprising

      (a) 1 to 99.99% by weight of at least one monomer [~~chosen~~] selected from the group consisting of N-vinylimidazoles and diallylamines, optionally in partially or completely quaternized form;

      (b) 0 to 98.99% by weight of at least one neutral or basic water-soluble monomer which is different from (a);

      (c) 0 to 40% by weight of at least one unsaturated acid or unsaturated anhydride,

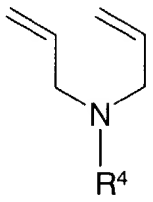
      (d) 0 to 50% by weight of at least one free-radically copolymerizable monomer which is different from the monomers (a), from the monomers (b) [~~or~~] and from the monomers (c); and

      (e) 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds; and

   (ii) subsequent partial or complete quaternization and protonation of the polymer in the case where the monomer (a) is unquaternized or only partially quaternized.

2. (*original*) The preparation as claimed in claim 1, wherein the protonation as in (ii) takes place during formulation of the preparation.

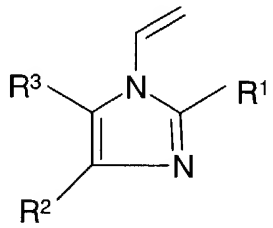
3. (*previously submitted*) The preparation as claimed in claim 1, wherein monomer (a) is at least one diallylamine derivative of the formula (II),



(II)

in which the radical R^4 is C_1-C_{24} alkyl.

4. (*original*) The preparation as claimed in claim 1, wherein monomer (a) is at least one N-vinylimidazole derivative of the formula (I),



(I)

in which the radicals R^1 to R^3 independently of one another are hydrogen, C_1-C_4-alkyl or phenyl.

5. (*previously submitted*) The preparation as claimed in claim 1, wherein monomer (b) is at least one N-vinyllactam.

6. (*currently amended*) The preparation as claimed in claim 1, [~~chosen~~] selected from the group consisting of cosmetic compositions for cleansing the skin.

7. (*currently amended*) The preparation as claimed in claim 6, [~~chosen~~] selected from the group consisting of soaps, syndets, liquid washing, shower and bath preparations.

8. (*currently amended*) The preparation as claimed in claim 1, [~~chosen~~] selected from the group consisting of cosmetic compositions for the care and protection of the skin, nailcare compositions, and preparations for decorative cosmetics.

9. (*currently amended*) The preparation as claimed in claim 8, [~~chosen~~] selected from the group consisting of skincare compositions, personal hygiene care compositions, footcare compositions, sunscreens, repellents, shaving compositions, depilatories, anti-acne compositions, makeup, mascara, lipsticks, eyeshadows, kohl pencils, eyeliners, blushers, powders and eyebrow pencils.

10. (*currently amended*) The preparation as claimed in claim 9, wherein the skincare compositions are [~~chosen~~] selected from the group consisting of water-in-oil [~~W/O~~] or [~~O/W~~] oil-in-water skin

creams, day and night creams, eye creams, antiwrinkle creams, moisturizers, bleaching creams, vitamin creams, skin lotions, care lotions and moisturizing lotions.

11. (*original*) The preparation as claimed in claim 1, wherein the copolymer is used in the form of a [~~W/O~~] water-in-oil emulsion.

12. (*original*) The preparation as claimed in claim 11, wherein the copolymer has been polymerized in the emulsion or suspension.

13. (*original*) The preparation as claimed in claim 12, wherein the oil phase of the emulsion or suspension comprises a cosmetic oil.

14. (*currently amended*) The skin composition or dermatological preparation of claim 1 wherein [~~the polymer~~] a monomer mixture [~~consists~~] consisting of

[~~(i) free-radically initiated copolymerization of a monomer mixture consisting of~~]

(a) 1 to 99.99% by weight of at least one monomer [~~chosen~~] selected from the group consisting of N-vinylimidazoles and diallylamines, optionally in partially or completely quaternized form;

(b) 0 to 98.99% by weight of at least one neutral or basic water-soluble monomer which is different from (a);

(d) 0 to 50% by weight of at least one free-radically copolymerizable monomer which is different from the monomers (a), from the monomers [~~or~~] (b), and from unsaturated acids [~~or~~] and unsaturated anhydrides;

(e) 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds; [~~and~~]

[~~(ii) subsequent partial or complete quaternization and protonation of the polymer in the case where the monomer (a) is unquaternized or only partially quaternized.~~]

is employed in the free-radical initiated copolymerization stage (i).

15. (*new*) The skin composition or dermatological preparation of claim 1 wherein a monomer mixture consisting of

(a) 1 to 99.99% by weight of at least one monomer selected from the group consisting of N-vinylimidazoles and diallylamines, optionally in partially or completely quaternized form;

(b) 0 to 98.99% by weight of at least one neutral or basic water-soluble monomer which is different from (a);

(c) 0 to 40% by weight of at least one unsaturated acid or unsaturated anhydride,

(d) 0 to 50% by weight of at least one free-radically copolymerizable monomer which is different from the monomers (a), from the monomers (b) and from the monomers (c); and

(e) 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds;

is employed in the free-radical initiated copolymerization stage (i).

APPENDIX II:

THE CURRENT CLAIMS (clean version):

1. (*currently amended*) In a skin cosmetic or dermatological preparation selected from cosmetic compositions for cleansing the skin, cosmetic compositions for the care and protection of the skin, nail care compositions, and preparations for decorative cosmetics, the improvement wherein the composition consists essentially of customary additives and at least one copolymer obtained by

   (i) free-radically initiated copolymerization of a monomer mixture comprising

      (a) 1 to 99.99% by weight of at least one monomer selected from the group consisting of N-vinylimidazoles and diallylamines, optionally in partially or completely quaternized form;

      (b) 0 to 98.99% by weight of at least one neutral or basic water-soluble monomer which is different from (a);

      (c) 0 to 40% by weight of at least one unsaturated acid or unsaturated anhydride,

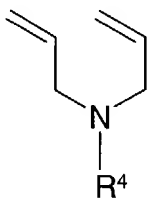
      (d) 0 to 50% by weight of at least one free-radically copolymerizable monomer which is different from the monomers (a), from the monomers (b) and from the monomers (c); and

      (e) 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds; and

   (ii) subsequent partial or complete quaternization and protonation of the polymer in the case where the monomer (a) is unquaternized or only partially quaternized.

2. (*original*) The preparation as claimed in claim 1, wherein the protonation as in (ii) takes place during formulation of the preparation.

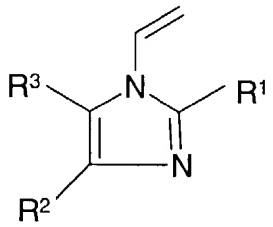
3. (*previously submitted*) The preparation as claimed in claim 1, wherein monomer (a) is at least one diallylamine derivative of the formula (II),



(II)

in which the radical R^4 is C_1-C_{24} alkyl.

4. (*original*) The preparation as claimed in claim 1, wherein monomer (a) is at least one N-vinylimidazole derivative of the formula (I),



(I)

in which the radicals R^1 to R^3 independently of one another are hydrogen, C_1-C_4-alkyl or phenyl.

5. (*previously submitted*) The preparation as claimed in claim 1, wherein monomer (b) is at least one N-vinyllactam.

6. (*currently amended*) The preparation as claimed in claim 1, selected from the group consisting of cosmetic compositions for cleansing the skin.

7. (*currently amended*) The preparation as claimed in claim 6, selected from the group consisting of soaps, syndets, liquid washing, shower and bath preparations.

8. (*currently amended*) The preparation as claimed in claim 1, selected from the group consisting of cosmetic compositions for the care and protection of the skin, nailcare compositions, and preparations for decorative cosmetics.

9. (*currently amended*) The preparation as claimed in claim 8, selected from the group consisting of skincare compositions, personal hygiene care compositions, footcare compositions, sunscreens, repellents, shaving compositions, depilatories, anti-acne compositions, makeup, mascara, lipsticks, eyeshadows, kohl pencils, eyeliners, blushers, powders and eyebrow pencils.

10. (*currently amended*) The preparation as claimed in claim 9, wherein the skincare compositions are selected from the group consisting of water-in-oil or oil-in-water skin creams, day and night creams, eye creams, antiwrinkle creams, moisturizers, bleaching creams, vitamin creams, skin lotions, care lotions and moisturizing lotions.

11. (*original*) The preparation as claimed in claim 1, wherein the copolymer is used in the form of a water-in-oil emulsion.

12. (*original*) The preparation as claimed in claim 11, wherein the copolymer has been polymerized in the emulsion or suspension.

13. (*original*) The preparation as claimed in claim 12, wherein the oil phase of the emulsion or suspension comprises a cosmetic oil.

14. (*currently amended*) The skin composition or dermatological preparation of claim 1 wherein a monomer mixture consisting of

(a) 1 to 99.99% by weight of at least one monomer selected from the group consisting of N-vinylimidazoles and diallylamines, optionally in partially or completely quaternized form;

(b) 0 to 98.99% by weight of at least one neutral or basic water-soluble monomer which is different from (a);

(d) 0 to 50% by weight of at least one free-radically copolymerizable monomer which is different from the monomers (a), from the monomers (b), and from unsaturated acids and unsaturated anhydrides;

(e) 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds;

is employed in the free-radical initiated copolymerization stage (i).

15. (*new*) The skin composition or dermatological preparation of claim 1 wherein a monomer mixture consisting of

(a) 1 to 99.99% by weight of at least one monomer selected from the group consisting of N-vinylimidazoles and diallylamines, optionally in partially or completely quaternized form;

(b) 0 to 98.99% by weight of at least one neutral or basic water-soluble monomer which is different from (a);

(c) 0 to 40% by weight of at least one unsaturated acid or unsaturated anhydride,

(d) 0 to 50% by weight of at least one free-radically copolymerizable monomer which is different from the monomers (a), from the monomers (b) and from the monomers (c); and

(e) 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds;

is employed in the free-radical initiated copolymerization stage (i).